

What is claimed is:

1           1.       A first switch system capable of communicating with a second switch  
2 system, comprising:  
3               a storage element to store information indicating at least one available  
4 trunk for originating a call with the second switch system; and  
5               a controller adapted to determine if the indicated at least one available  
6 trunk is likely to be used by the second switch for call origination, and  
7               if the at least one available trunk is likely to be used by the second switch,  
8 the controller adapted to select another trunk for call origination.

1           2.       The first switch system of claim 1, wherein the storage element comprises  
2 a main queue and a shadow queue, the main queue to store identifiers of available trunks  
3 and the shadow queue to store identifiers arranged in an order to track storage of  
4 identifiers of available trunks in the second switch.

1           3.       The first switch system of claim 2, wherein the main queue is adapted to  
2 use one of a most idle (MIDL) algorithm and a least idle (LIDL) algorithm that is a  
3 counterpart of the other one of the MIDL algorithm and LIDL algorithm for a queue in  
4 the second switch.

1           4.       The first switch system of claim 2, wherein the main queue and shadow  
2 queue are adapted to employ different algorithms for storing identifiers of available  
3 trunks.

1           5.       The first switch system of claim 4, wherein the controller is adapted to  
2 select one trunk for a call origination, the controller adapted to remove an identifier of the  
3 one trunk from the shadow queue and the main queue.

1           6.       The first switch system of claim 5, wherein the controller is adapted to  
2 return an identifier of a released trunk to the shadow queue and the main queue.

1           7.       The first switch system of claim 6, wherein the controller is adapted to  
2 return the identifier of the released trunk to a first end of the main queue and to an  
3 opposite end of the shadow queue.

1           8.       The first switch system of claim 7, wherein the controller is adapted to  
2 select the one trunk from a first entry of the main queue, the controller adapted to further  
3 compare an identifier in the first entry with a corresponding entry in the shadow queue to  
4 determine if one first trunk is likely to be selected by the second switch.

1           9.       The first switch system of claim 2, wherein the main queue is adapted to  
2 use one of an ascending sequential (ASEQ) algorithm and descending sequential (DSEQ)  
3 algorithm that is a counterpart of the other one of the ASEQ algorithm and DSEQ  
4 algorithm for a queue in the second switch.

1           10.      The first switch of claim 2, wherein the main queue is adapted to use one  
2 of a clockwise circular trunk hunting (CWH) algorithm and a counter-clockwise circular  
3 trunk hunting (CCWH) algorithm that is a counterpart of the other one of the CWH  
4 algorithm and CCWH algorithm for a queue in the second switch.

1           11.      The first switch system of claim 1, the storage element further to store  
2 information for tracking trunk selection in the second switch.

1           12.      The first switch system of claim 11, wherein the controller is adapted to  
2 use a first algorithm for selecting a trunk that is a counterpart of a second, different  
3 algorithm for selecting a trunk in the second switch.

1           13.      The first switch system of claim 12, wherein the first algorithm is selected  
2 from the group consisting of the MIDL, LIDL, ASEQ, DSEQ, CWH, CCWH algorithms.

1           14.     An article comprising at least one storage medium containing instructions  
 2     that when executed cause a first switch system to:  
 3                 maintain a first queue containing identifiers of available trunks;  
 4                 arrange the identifiers of the first queue in a first arrangement;  
 5                 maintain a second queue containing the identifiers of available trunks;  
 6                 arrange the identifiers of the second queue in a second, different  
 7     arrangement; and  
 8                 select a trunk in response to a call origination based on the first and second  
 9     queues.

1           15.     The article of claim 14, wherein the instructions when executed cause the  
 2     first switch system to arrange the identifiers of the second queue in the second  
 3     arrangement that is consistent with an arrangement of a queue in a second switch system  
 4     coupled to the first switch system over a set of trunks.

1           16.     The article of claim 15, wherein the instructions when executed cause the  
 2     first switch system to select the trunk by comparing an entry of the first queue with an  
 3     entry of the second queue to determine if a conflict is likely with the second switch  
 4     system.

1           17.     The article of claim 16, wherein the instructions when executed cause the  
 2     first switch system to further remove an identifier of a selected trunk from the first and  
 3     second queues.

1           18.     The article of claim 17, wherein the instructions when executed cause the  
 2     first switch system to further return an identifier of a released trunk to a first end of the  
 3     first queue and to an opposite end of the second queue.

1           19.     The article of claim 14, wherein the instructions when executed cause the  
2 first switch system to arrange the identifiers of the first queue using one of an MIDL  
3 arrangement and LIDL arrangement and to arrange the identifiers of the second queue  
4 using the other one of the MIDL and LIDL arrangements.

1           20.     The article of claim 14, wherein the instructions when executed cause the  
2 first switch system to arrange the identifiers of the first queue using one of an ASEQ  
3 arrangement and DSEQ arrangement and to arrange the identifiers of the second queue  
4 using the other one of the ASEQ and DSEQ arrangements.

1           21.     The article of claim 14, wherein the instructions when executed cause the  
2 first switch system to arrange the identifiers of the first queue using one of an CWH  
3 arrangement and CCWH arrangement and to arrange the identifiers of the second queue  
4 using the other one of the CWH and CCWH arrangements.

1           22.     A method of selecting a circuit for call origination between a first switch  
2 and a second switch, comprising:  
3                 maintaining a first list of available circuits in the first switch;  
4                 tracking a second list of available circuits in the second switch; and  
5                 selecting a circuit for call origination based on the first list and the  
6 tracking of the second list.

1           23.     The method of claim 22, wherein tracking the second list is performed  
2 without communicating information regarding the second list from the second switch to  
3 the first switch.

1           24.     The method of claim 22, wherein tracking the second list is performed  
2 locally in the first switch without knowledge of a content of the second list.

1           25.     The method of claim 22, further comprising using an algorithm for  
2 updating the first list that is different than an algorithm for the second list.

1           26.     The method of claim 22, wherein maintaining the first list comprises  
2 providing a first queue and tracking the second list comprises providing a shadow queue.

1           27.     The method of claim 26, further comprising removing an identifier of a  
2 selected circuit from the first queue and the shadow queue.

1           28.     The method of claim 27, further comprising returning an identifier of a  
2 released circuit to the first queue and the shadow queue.

1           29.     A data signal embodied as a carrier wave and comprising instructions that  
2 when executed cause a system to:

3                     maintain a first list of available trunks in a first switch;  
4                     track a second list of available trunks in a second switch coupled to the  
5 first switch over a set of trunks; and  
6                     select a trunk for call origination in the first switch using the first list and  
7 tracking of the second list.

1           29.     A first switch system capable of communicating with a second switch  
2 system over a set of trunks, comprising:

3                     a first queue containing identifiers of trunks available for originating a call  
4 with the second switch system;

5                     a shadow queue containing identifiers of trunks available for originating a  
6 call with the second switch system, the identifiers of the first queue arranged according to  
7 a first algorithm and the identifiers of the shadow queue arranged according to a second,  
8 different algorithm; and

9                     trunk selection logic adapted to select an available trunk using the first  
10 queue and the shadow queue, the trunk selection logic adapted to access the shadow  
11 queue to determine if a selected trunk from the first queue is likely to be used by the  
12 second switch for call origination, and

13                     if the available trunk is likely to be used by the second switch, the  
14 controller adapted to select another trunk for call origination.